

ABSTRACT OF THE DISCLOSURE

A system for actuating a spray pump assembly comprises a reference platform, a motor, a drive transmission, a spray pump holder, a force coupler, a force transducer, and a system controller. The motor receives a power and control input, and produces a rotary drive output. The drive transmission receives the rotary drive output and produces a linear drive output. The spray pump holder secures the spray pump assembly. The force coupler couples the linear drive output to the spray pump, and applies a force to the spray pump. The force transducer produces a force signal proportional to the force applied to the spray pump. The system controller receives a set of test inputs and provides the control input to the motor as a function of the set of test inputs. The system actuates the spray pump mechanism according to an actuation profile defined by the set of test inputs.